

M.Sc (F.C.Sc) Clothing and Textiles (REGULAR)												
Year	I	FABRIC MANUFACTURE AND DESIGN (Major)				Credits /Hours per week Hours per semester		4(2+2) Credits / 06hours per week Theory: 30 hours, Practical: 60 hours Total: 90 hours				
Semester	I	Year of Introduction: 2025-26 Year of revision:				Maximum Marks Minimum Marks		100 Marks 36 Marks				
Mode of Transaction		Lecture and Practical										
Course outcome (CO) CO1: In-depth understanding of woven figured designs and its representation. CO2: Ability to understand and analyse different fabric structures including woven, non-woven and leather. CO3: Acquisition of practical skills in textile designing through weaving, dyeing, printing, painting. CO4: Exposure to computer-aided textile designing. CO5: Hands-on knowledge of working in weaving, printing and knitting units.												
Unit No.	Topic				Contact Hours	Weight age (%)	BT Level	CO	PSO	Elements of Employability (Emp) / Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National (N) /Regional(R))/ Global(G)	Relation to Gender(G), Environment Sustainability (ES), Human Values (HV) Professional Ethics (PE)
THEORY												
I.	Compound Weave Structures Principle, characteristics, classification, nomenclature and design drafts of compound weaves a. Backed fabrics b. Double cloth structure c. Extra warp and extra weft figuring d. Compound damasks e. Tapestry fabrics f. Pile fabrics (Cut and uncut) g. Mock leno and gauze h. Lappet and swivel structures				12	20	2,3,4	1	1,2	Employability, Skill Development	Global	Gender, Human values
II.	Leather, Knitted and Non-Woven Structures a. Terms, definitions and classification b. Processing techniques and properties				12	20	2,3	2	1	Employability, Skill Development	Global	Gender, Human values

	c. End uses and performance requirements of knitted, non-woven and leather-like fabrics in apparel, home and technical applications								
III.	Surface and Structural Design Analysis a. Understanding textile layouts and its application through sample analysis (placement, repeats, balance) b. Preparation of samples using compound structures for apparel and home textiles c. Fabric ornamentation by digital printing and traditional (Block and resist) d. Dyeing techniques (Vat and reactive)	12	20	3,4,6	3	2	Employability, Skill Development	Global	Gender, Environment Sustainability
PRACTICAL									
IV.	Advanced CAD & Prototypes Development a. Design preparation with different repeat systems using Adobe photoshop and Tukatech b. Creation of woven and printed fabric simulations using Tukatech c. Compilation of CAD design portfolio using photoshop and TUKAtech d. Industry Visits: weaving / printing / knitting unit	27	20	3,4	4	2	Employability, Skill Development	Global	Environment Sustainability
V	Fabric Design a. Analysis of Compound weave samples b. Preparation of Design draft and point paper designs for selected compound weaves c. Sample weaving on Handloom/table loom for selected structures d. Fabric printing and dyeing techniques e. CAD design portfolio	27	20	4,5,6	3,5	2	Employability, Skill Development	Global	Environment Sustainability
SUGGESTED EVALUATION									
CCE (50% IA)			Marks		SEE (50% UA)				Marks
Class Test			20		Semester Exam				50
Lab work			10						
Home Assignment			05						
Quiz			10						

Attendance		05		
Total		50	Total	50
REFERENCES				
1.	Adeline A.D. (1969). <i>Guide book to manmade textile fabrics and textured yarns</i> .			
2.	Andrea M.C. and Smith J.G. (1986). <i>Practice of printed textiles</i> . Oxford University Press.			
3.	Burcise M. (1962). <i>Woven Fabrics</i> .			
4.	Grosicki Z. (1988). <i>Watson's Textile Design and Colour – Elementary Weave and Figured Fabric</i> .			
5.	Grosicki Z.J. (1977). <i>Watson's Advanced Textile Design</i> . London: New Butterworths & Co.			
6.	Seshadri and Nehru J. (1985). <i>Kalamkari – Painted and printed fabrics from Andhra Pradesh</i> . New York: Mapin International Inc.			
7.	Shenai V.A. (1980). <i>Textile Printing and Processes</i> . Bombay: Sevak Publication.			
8.	Ockerman P. (2004). <i>Fabric Structure and Design</i> . New Delhi: New Age International (P) Publishers.			
9.	National Museum Institute. (2025). <i>Manual on conservation of textiles</i> (Revised ed.).			
10.	Patel, A., & Singh, M. (2025). Textile degradation: A comprehensive review and experimental approach. <i>Journal of Textile Engineering & Fashion Technology</i> , 11(4), 78-92.			

Bloom’s Taxonomy (BT) Levels: 1. Remember 2. Understand 3. Application 4. Analysis 5.Evaluation 6. Creation

Programme Outcomes (POs)

- PO1:** Demonstrate advanced knowledge of textile structures and fabric manufacturing processes.
- PO2:** Apply technical and digital skills in textile design and product development.
- PO3:** Analyze and evaluate fabric structures for functional and aesthetic applications.
- PO4:** Promote sustainable and ethical practices in textile production.
- PO5:** Exhibit professional competence in textile industry and research environments.

	Department of Clothing and Textiles Faculty of Family and Community Sciences The Maharaja Sayajirao University of Baroda NAAC Accredited "A+" Grade			Academic Year		2027-28			
M.Sc (F.C.Sc) Clothing & Textiles									
Year	I	PATTERN GRADING AND CONSTRUCTION	Credits/Hours per week Hours per semester		4 (0+4) / 8 hours per week (Practical: 120 hours) Total: 120 hours/semester				
Semester	I	Year of Introduction: 2027-28 Year of revision:	Minimum / Maximum Marks		36 /100 Marks				
Mode of Transaction	Practical								
Course outcome CO 1 Develop advanced skills in pattern drafting and grading CO 2 Build technical understanding of size systems and fit variation CO 3 Apply multiple grading methods to basic and complex patterns CO 4 Introduce digital pattern making and grading workflows CO 5 Enable students to prepare industry-standard pattern portfolios									
Unit no.	Topic	Contact Hours	Weight age (%)	B T L ev el	CO	PSO	Elements of Employability (Emp)/ Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National(N)/ Regional(R)/ Global(G)	Relation to Gender(G), Environment Sustainability(ES). Human Values (HV), Professional Ethics (PE)
I	Introduction to Pattern Grading a. Purpose and importance of grading b. Grading terminology c. Size standards (national & international overview) d. Drafting the basic pattern set for grading	12	10	1 , 2			Employability, Skill Development	Global	Environment Sustainability
II	Developing Drafts	24	20	1 , 2			Employability, Skill Development	Global	Environment Sustainability, Professional Ethics

	Developing children's bodice block, sleeve block, skirt and short block and grading them in various sizes using; a. Nest or Stack Method b. Radial Method c. Split Method d. Vector Method			, 3					
III	Recent and Emerging Content (Integrated Across Units) a. Introduction to CAD pattern making and grading b. software (Gerber/Lectra/TUKA – demonstrative) c. Digital vs manual grading comparison d. Sustainable pattern practices: e. Marker efficiency f. Fabric waste minimization g. Industry documentation standards	36	30	2 , 3 , 4			Employability, Entrepreneurship, Skill Development	Global	Environment Sustainability, Professional Ethics
IV	Portfolio Development & Industry Practices a. Grading a standard size block to multiple sizes b. Preparing two complete pattern sets: o Trouser/Short o Shirt	48	40	3 , 4 , 5 , 6			Employability, Skill Development	Global	Environment Sustainability, Professional Ethics

	c. Pattern markings: grain, notches, balance marks, seam allowance d. Marker making for: ○ Three fabric widths ○ Fabric designs: stripes and plaids ○ Specification sheet ○ Measurement chart ○ Construction of garments of the prepared patterns ○ Technical flat / instruction sheet								
SUGGESTED EVALUATION									
CCE (50% IA)	MARKS		SEE (50% UA)					MARKS	
Class work	30		Portfolio Presentation and Viva					50	
Portfolio	20								
Total	50		Total					50	
REFERENCES									
1.	Garment Technology for Fashion Designers Gerry Cooklin Blackwell Science ltd.								
2.	Patrick John Ireland Fashion design Illustration: Men								
3.	Pattern grading for Children’s /Women’s/Men’s Clothes Technology Of Sizing Gerry Cooklin Oxford B.S.P. Professional Books London.								

Bloom’s Taxonomy (BT) Levels: 1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation

M.Sc (F.C.Sc) Clothing and Textiles- REGULAR First Year – Semester I (Level – 6.5)										
Year	I	Foundation Course Research Methodology and Scientific Writing	Credits / Hours per week Hours per semester			4 (2+2) Credits / 4 hours per week Practical – 60 hours				
Semester	I	Year of Introduction: 2026-27	Maximum Marks / Minimum Marks			100 Marks / 36 Marks				
Mode of Transaction		Lectures, Demonstrations, Workshops, Practical Exercises, Readings, Seminars, Tutorials, ICT-enabled learning.								
Course outcome (CO) CO1 Understand the nature, scope, and types of research in Clothing and Textiles. CO2 Formulate research problems and design appropriate research methodologies. CO3 Apply sampling techniques and data collection methods scientifically. CO4 Process, analyze, and interpret quantitative and qualitative data; also with use of AI. CO5 Demonstrate competence in scientific writing and dissertation structuring. CO6 Use computer applications effectively for data presentation, referencing, formatting, and publication, highlighting the use of AI in research and writing										
Unit No.	Topic		Contact Hours	Weight-age (%)	BT Level	CO	PSO	Elements of Employability (Emp) / Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National (N) /Regional(R)/ Global(G)	Relation to Gender(G), Environment Sustainability (ES), Human Values (HV) Professional Ethics (PE)
COURSE CONTENT										
UNIT I	Introduction to Research Methodology		12	20	1,2	1,2		SD	N.G	G, HV, PE
	1. Meaning, objectives and significance of research 2. Role of research in Clothing and Textiles 3. Types of research: Historical, Experimental, Descriptive, Analytical a. Applied vs Fundamental b. Quantitative vs Qualitative c. Conceptual vs Empirical 4. Research process and scientific method 5. Research Gap: Identification and formulation of research problem 6. Variables and hypothesis formulation									
UNIT II	Research Design and Sampling		12	20	2,3	2,3		SD	L, N, G	HV, PE
	1. Meaning, features and types of research design 2. Sampling design: concept and need a. Characteristics of good sample b. Types of sampling techniques 3. Measurement and scaling techniques 4. Validity and reliability 5. Development of tools: questionnaire, interview schedule, observation									
	Data Collection, Processing and Analysis		12	20	3,4	3.4		Emp, SD	L, R, N	G, ES, PE

UNIT III	1. Primary and Secondary data 2. Methods of data collection 3. Editing, coding, classification and tabulation 4. Diagrammatic and graphical presentation 5. Introduction to statistical analysis 6. Interpretation of qualitative data 7. Ethical considerations in data handling 8. AI in Data Collection, Data Analysis and Visualization								
UNIT IV	Scientific Writing and Dissertation Structure 1. Scientific writing as communication a. Forms of scientific writing: thesis, journal article, review article, monograph, report b. Online and Off-line Resources for Review and Publishing 2. Structure of Dissertation: Title, Abstract, Introduction, Review of Literature, Methodology, Results & Discussion, Summary & Conclusion 3. Preliminary and supplementary material in dissertation writing 4. References and bibliography (APA Style) 5. Use of appendices and annexures 6. Plagiarism and academic integrity 7. Proofreading and editing	12	20	3,4	5		Emp, SD	G	HV, PE
UNIT V	Computer Applications in Research and Writing 1. Word processing for Dissertation formatting 2. Page layout, margins, styles, automatic numbering 3. Tables, charts and graphical presentation 4. Referencing software and citation management 5. Track changes, comments and collaborative editing 6. Creating table of contents, list of tables and figures 7. Document protection and formatting for journal submission 8. Preparing manuscript for publication 9. Artificial Intelligence in academic research and scientific writing	12	20	3,4	6		Emp, SD	G	PE
SUGGESTED EVALUATION									
CCE (IA 50%)		Marks	SEE (UA 50%)					Marks	
Written Exam		10	Semester Exam (Theory / Written)					50	
Data Analysis Exercise		10							
Scientific Writing Exercise		10							
Assignment / Minor Research		15							
Presentation		05							
Total		50	Total					50	

REFERENCES	
1.	Abdul Rahim, F. (2009). <i>Thesis writing: A manual for researchers</i> . New Age International.
2.	American Psychological Association. (2020). <i>Publication manual of the American Psychological Association</i> (7th ed.). APA.
3.	Anderson, J., & Poole, M. (2011). <i>Assignment and thesis writing</i> (4th ed.). Wiley India.
4.	Bandarkar, P. L., & Wilkinson, T. S. (2000). <i>Methodology and techniques of social research</i> . Himalaya Publishing House.
5.	Cooper, H. M. (1990). <i>Integrating research: A guide for literature reviews</i> (2nd ed.). Sage.
6.	Gay, L. R. (1981). <i>Educational research: Competencies for analysis and application</i> (2nd ed.). Charles E. Merrill.
7.	Kamath, R., & Udipi, S. (n.d.). <i>Guide to thesis writing</i> . SNDT Women’s University.
8.	Kothari, C. R. (2004). <i>Research methodology: Methods and techniques</i> (2nd ed.). New Age International.
9.	Oliver, P. (2008). <i>Writing your thesis</i> (2nd ed.). Sage Publications.
10.	Piran, M. J., & Tran, N. H. (2024). Enhancing research methodology and academic publishing: A structured framework for quality and integrity. arXiv. https://doi.org/10.48550/arXiv.2412.05683
11.	Ramadass, P., & Aruni, W. (2009). <i>Research and writing across the disciplines</i> . MJP Publishers.
12.	Sternberg, R. J. (1991). <i>The psychologist’s companion: A guide to scientific writing for students and researchers</i> . Cambridge University Press.
13.	Thomas, C. G. (2021). <i>Research methodology and scientific writing</i> (2nd ed.). Springer Nature. https://doi.org/10.1007/978-3-030-64865-7
14.	Thyer, B. A. (1994). <i>Successful publishing in scholarly journals</i> . Sage.
15.	Wolcott, H. F. (1990). <i>Writing up qualitative research</i> . Sage.
16.	Yadav, S. S., Gupta, S., & Choudhary, A. K. (2026). <i>Scientific research methodology: Principles, tools, and techniques</i> . CRC Press.

Bloom’s Taxonomy levels: 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

Syllabus of Courses

	Department of Clothing and Textiles Faculty of Family and Community Sciences The Maharaja Sayajirao University of Baroda NAAC Accredited "A+" Grade	Academic Year	2025-26
M.Sc (F.C.Sc) Clothing & Textiles (REGULAR) Fisrt Year- Level 6.0			
Year I	Traditional Textiles of India	Credits/Hours per week Hours per semester	4 (4+0) Credits / 4 hours per week (Theory: 60 hours) Total: 60 Hours/Semester
Semester I	Year of Introduction: 2023-24 Year of revision:2021	Minimum / Maximum Marks	36/100 Marks
Mode of Transaction	Lecture and Tutorial		
Course Outcome (CO) CO1: Understanding the Indian history and its unique textile traditions. CO2: Understanding of the geographical and cultural influence on textiles of different regions. CO3: In-depth knowledge and understanding of traditional Indian textiles and their classification based on techniques and tools used in production. CO4: Ability to identify and differentiate textiles from different parts of India with reference to technique, colour and motifs. CO5: Appreciation for Indian traditional textiles and their utilization in contemporary contexts.			

Unit no.	Topic	Contact Hours	Weightage (%)	BT Level	CO	PSO	Elements of Employability (Emp)/ Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National(N)/ Regional(R) / Global(G)	Relation to Gender(G), Environment Sustainability (ES). Human Values (HV), Professional Ethics (PE)
I	1. History of Indian Traditional Textiles — Chronological development of spinning, weaving and motifs through the centuries Study of various trade routes and its influence on Indian Textiles 2. Traditional materials and techniques for ornamentation 3. Yarns, colours, and methods of ornamentation	5	10%	2	1	3,5,9	Employability	National	HV
II	1. Painted Textiles History, application and colouring techniques (pigment & mordant) 2. Printed Textiles History, block types; processes — direct, mordant, resist Block printed textiles — Gujarat, Rajasthan, Madhya Pradesh, Andhra Pradesh: history, technique, colours, motifs and design 3. Embroidered Textiles Characteristics features of commercial/tribal/domestic — raw materials, stitches, motifs, design, colours	15	25%	2,3	2,3	2,3,4,5	Employability	National	HV
III	Resist dyed textiles: history, techniques, classification	15	25%	2,3	2,3,	2	Employability	Global	HV

	- Yarn-resist (Ikat): geography, techniques, forms; Andhra Pradesh, Telangana, Gujarat, Odisha — history, features, motifs, colours - Fabric-resist (tie & dye): geography, techniques; Gujarat, Rajasthan, Tamil Nadu — history, features, colours, motifs				4, 5				
IV	Woven textiles: history, handloom, weaves, raw materials - Muslins — plain & figured; regions: Rajasthan, MP, West Bengal, Andhra Pradesh, Telangana, Manipur - Brocades (with/without zari) — Gujarat, Uttar Pradesh, Maharashtra, Tamil Nadu, West Bengal - Shawls — Kashmir, Himachal Pradesh, Gujarat - Floor coverings — carpets & durries: techniques, looms, designs (North & Western India) - Northeastern woven textiles	25	40%	2,3	2, 3, 4, 5	4,5	Employability	National	ES, HV, PE
SUGGESTED EVALUATION									
CCE (50% IA)		MARKS	SEE (50% UA)					MARKS	

Class test (Written exam)	20	Final Test (Theory + Application)	50
Survey related assignments	10		
Museum visit/ Workshop	10		
Activity (painting/printing on product)/ poster making/ promotion of traditional textiles on social media	10		
Total	50	Total	50

REFERENCES

1.

Agrawal, Y. (2003). Silk Brocades. Roli Books

2.

Bhatnagar P. (2004). Traditional Indian Costumes and Textiles. Abhishek Publications, New Delhi.

3.

Bhushan, Jamila Brij. (1958). The Costumes & Textiles of India. Taraporevala Sons & Co. Pvt. Ltd., Bombay.

4.

Chisti R.K. (2013). Sari: Tradition and Beyond, Roli Publication

5.

Dhamija, Jasleen & Jain, Jyotindra (1989). Handwoven Fabrics of India. Mapin Publishing Pvt. Ltd., Ahmedabad.

6.

Gillow J. & Barnard N. (2014). Indian Textiles (1st ed.). Thames & Hudson, London.

7.

Gosh, G. & Shukla G. (2014). Ikat Textiles of India (1st ed.). PH Publishing, New Delhi.

8.

Karolia, A. (2019). *Traditional Indian handcrafted textiles: History, techniques, processes, designs* (Vols. 1–2). Niyogi Books.

9.

Irwin, John & Schwartz, P.R. (1966). Studies in Indo-European Textiles History, Calico Museum of Textiles, Ahmedabad.

10.

Pathak A. (2006). Indian Costumes. Roli Books, Mumbai.

11.	Singh M. (2011). Traditional and Beyond: Handcrafted Indian Textile. Roli Books Pvt. Ltd, New Delhi.
12.	The Master Weavers (1982). Development Commissioner: Handloom, Govt. of India. Tata Press Ltd., Bombay.
13.	Block Printing & Dyeing of Bagru, Rajashtan/Bijoy Chandra Mohanty and Jagdish Prasad Mohanty, Ahmedabad, Calico Museum of Textiles 1983,
14.	Singh. M., ed., Handicrafted Indain Textiles, Reprint. New Delhi, Roli,2005
15.	Mathur, A., Indian Shawls: Mantles of 14hysic14r New Delhi, A.P.H., 2000
16.	Rehman. S. and Jafri, N., The Kashmiri Shawl: From Jamavar to Paisley, Ahmedabad, Mapin,2006

Bloom’s Taxonomy (BT) Levels: 1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation

		Department of Clothing and Textiles Faculty of Family and Community Sciences The Maharaja Sayajirao University of Baroda NAAC Accredited "A+" Grade				Academic Year		2026-27				
M.Sc (F.C.Sc) -I Clothing & Textiles (Clothing & Textiles) (REGULAR) First Semester												
Year	I	COLOUR IN TEXTILE				Credits/Hours per week Hours per semester		4 (3+1) / 5 hours per week (Theory: 45 hours Practical:30 hours) Total: 75 hours/semester				
Semester	I	Year of Introduction: Year of revision:				Minimum / Maximum Marks		36 / 100 Marks				
Mode of Transaction		Lecture and Practical										
Course Outcome (CO) CO1: Understanding the scientific aspects of colours, their fastness properties. CO2: Understanding of the colour formulation, assessment of colour differences, colour sorting techniques and colour perception. CO3: Understanding theory of colour measurements in solution and on textiles and the instruments used for colour measurement. CO4: Demonstrate competence in industrial colour applications such as dye lot management, colour branding, and matching. CO5: Identify environmentally sustainable practices in colouration and comply with textile eco-legislation.												
Unit no.	Topic				Contact Hours	Weight age (%)	BT Level	CO	PSO	Elements of Employability (Emp)/ Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National(N)/ Regional(R)/ Global(G)	Relation to Gender(G), Environment Sustainability(ES). Human Values (HV), Professional Ethics (PE)

I	Fundamentals of Light and Colour in Textiles 1. Nature of Light, Electromagnetic Radiation and Visible Spectrum 2. Sources of Illumination: Natural and Artificial 3. Colour attributes: hue, value, chroma 4. Metamerism and its significance in textiles	10	13	1,2	1,2		Employability, Skill Development	Global	Environment Sustainability, Professional Ethics
II	Color perception, Color Systems and Color Measurements 1. Principles of Color Perception 2. Physiology of the Eye Perception mechanism 3. Theories of Colour vision 4. Defects in Colour Vision 5. Assess for Colour Blindness 6. Colour Systems a. Additive and Subtractive colour Mixing b. Colour Order Systems c. CIE Colour Specification, Computation Tristimulus Value-X,Y,Z from Reflectance Values, The CIELAB (L*,a, b*) coordinates, Visual assessment of colour difference in textile and metamerism 7. Instruments for the measurement of colour, principles of spectrometer and colorimeter	15	20	2,3	1,2,3		Employability, Skill Development	Global	Environment Sustainability Professional Ethics
III	Dyes, Pigment, Dyeing and Environmental Considerations 1. Classification of Dyes and Pigment a. According to application b. According to Chemical Constitution 2. Theory and Kinetics of Dyeing 3. Relation between Colour and Chemical Constitution of fibres: Cellulosic, Protein and Synthetic fibres (Witts Theory) 4. Environmental and health impacts of dyeing 5. Introduction to Eco- legislation in textile dyeing	10	13	3,4	1,2,3		Employability, Skill Development	Global	Environment Sustainability, Professional Ethics

IV	Colour Performance, Quality and Textile Applications 1. Colour fastness properties- Washing, Rubbing, Light and Perspiration 2. Factors affecting colour fastness in textiles 3. Colour matching and colour reproduction 4. Colour differences and acceptability in textile quality control	10	14	3,4,5	2,3,4		Employability, Skill Development	Global	Environment Sustainability, Professional Ethics
PRACTICAL									
I	Colour Systems and Spectral Analysis 1. Colour systems: Ostwald, Munsell and CIE Systems 2. Spectrophotometric analysis of dyed solution and samples to measure K/S values 3. Visual colour evaluation and shade sorting using the colour matching cabinet under various light sources 4. Dye Extraction and identification using standard chemical tests Cellulosic: Direct, Vat, Reactive Protein: Acid, Natural dyes Synthetic: Disperse, Basic 5. Study of Metamerism using different illuminates	15	20	2,3,4	4		Employability, Skill Development	Global	Environment Sustainability, Professional Ethics
SUGGESTED EVALUATION									
CCE (50% IA)		MARKS	SEE (50% UA)					MARKS	
Class test (Written exam)		20	Final Test (Theory)					50	
Class Assignment/ Home Assignment		10							
Practical work/Presentation		20							
Total		50	Total					50	

REFERENCES	
1.	Albers, J. (2019). <i>Interaction of colour</i> . Yale University Press.
2.	Arora, M. G. (1996). <i>Textbook of dyes</i> . Anmol Publications.
3.	Chatwal, G. R. (2002). <i>Synthetic dyes</i> . Himalaya Publishing House.
4.	Choudhury, A. K. R. (2011). <i>Textile preparation and dyeing</i>. Society of Dyers and Colourists.
5.	Giles, C. H. (1983). <i>A laboratory course in dyeing</i> . Society of Dyers and Colourists.
6.	Guptee, V. C. (2008). <i>Colour technology: Tools, techniques & application</i> . Colour Publications Pvt. Ltd.
7.	Itten, J. (1970). <i>The elements of colour</i> . John Wiley & Sons.
8.	Shenai, V. A. (1979). <i>Introduction to the chemistry of dyestuff</i>. Sevak Prakashan.
9.	Shenai, V. A., & Saraf, N. M. (1991). <i>Principles and practice of dyeing</i> . Sevak Prakashan.
10.	Trotman, E. R. (1964). <i>Dyeing and chemical technology of fibres</i> . Charles Griffin & Company Limited.

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		Department of Clothing and Textiles Faculty of Family and Community Sciences The Maharaja Sayajirao University of Baroda NAAC Accredited "A+" Grade					Academic Year			2026-27					
B.Sc (F.C.Sc) Clothing and Textiles (REGULAR) Fourth Year – Level 6.0															
Year	IV	GARMENT PRODUCTION TECHNOLOGY		Credits / Hours per semester		4 (4+0) Credits / 4 hours per week (Theory: 60 hours) Total: 60 Hours/Semester									
Semester	I	Year of Introduction: 2025-2026 Year of Syllabus Revision: -		Maximum Marks / Grade		100 Marks									
Course Outcome (CO) CO1: Critically evaluate global garment industry structures and emerging business models. CO2: Design and optimize industrial garment production systems using advanced technologies. CO3: Perform strategic cost analysis and supply chain evaluation. CO4: Integrate sustainability, compliance, and ethical frameworks into garment production. CO5: Develop data-driven and technology-enabled production solutions.															
Unit No.	Topic			Contact Hours	Weight age (%)	BT Level	CO	PS O	Elements of Employability (Emp) / Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National (N) /Regional (R)/ Global(G)	Relation to Gender(G), Environment Sustainability (ES), Human Values (HV)				

									Professional Ethics (PE)				
THEORY													
I.	Global Clothing Industry Dynamics 1. Evolution of global apparel trade and post-MFA scenario 2. Fast fashion vs. slow fashion production models 3. Global sourcing, vendor compliance, and ESG frameworks 4. SWOT and PESTLE analysis of Indian garment sector 5. Case studies of multinational apparel corporations	12	20%	1,2	1	1	Employability	Global	ES				
II.	Organization of Garment Industry 1. Principles of management 2. Design department 3. Marketing department 4. Finance department 5. Purchasing department 6. Production department 7. Operation department	12	20%	1,2	2,3		Employability	Global	ES				
III	Advanced Manufacturing Technology 1. Cutting room: CAD/CAM Marker planning, lay and methods of cutting 2. Fusing: Cloth, method and equipment 3. Sewing: Seams, needles and threads, machinery 4. Finishing: Components and trims, labels and press 5. Quality control (ISO & TQM)	12	20%	1,2	2,3	2	Employability	Global	ES				

IV	Strategic Production Planning, Costing & Supply Chain Analytics 1. Advanced cost modeling and break-even analysis 2. Supply chain mapping and logistics optimization 3. Inventory control models (EOQ, JIT) 4. Warehousing automation and RFID tracking 5. Risk management in apparel supply chains	12	20%	1,2 ,4	5,6	4,5	Employability	Global	ES, HV, PE				
V	Sustainable & Smart Garment Production Systems 1. Circular economy models in apparel production 2. Zero-waste pattern engineering 3. Carbon footprint assessment in garment units 4. Industry 4.0 applications in apparel manufacturing 5. Smart factories and digital twins in fashion production	12	20%	1,2 ,4	5,6	4,5	Employability	Global	ES, HV, PE				
REFERENCES													
1.	Fletcher, K. (2014). <i>Sustainable fashion and textiles: Design journeys</i> (2nd ed.). Routledge. ISBN: 978-0-415-64456-3												
2.	Hethorn, J., & Ulasewicz, C. (2015). <i>Sustainable fashion: What's next?</i> Fairchild Books, Bloomsbury.												
3.	Mahapatra, N. N. (2019). <i>Textiles and environment</i> . Woodhead Publishing. ISBN: 978-93-80308-56-2												
4.	Partiban, M., & et al. (n.d.). <i>Sustainability in fashion and apparels: Challenges and solutions</i> . Woodhead Publishing.												

5 .	Sustainability in Fashion: A Cradle to Upcycle Approach. (2017). Germany: Springer International Publishing.				
6 .	Glock, R. E., & Kunz, G. I. (2005). Apparel manufacturing: Sewn product analysis (4th ed.). Pearson Prentice Hall.				
7 .	Kadolph, S. J. (Ed.). (2010). Textiles (11th ed.). Pearson.				
8 .	Rajput, D. (2022). Apparel production management and the technical package. Woodhead Publishing.				
9 .	Schenk, H. (2017). The fashion business manual: An illustrated guide to building a fashion brand. Fashionary International.				
10.	Tyler, D. J. (2012). Materials management in clothing production (2nd ed.). Wiley-Blackwell.				
11.	Chuter, A. J. (2015). Introduction to clothing production management. Wiley-Blackwell.				
12.	Niinimäki, K. (Ed.). (2018). Sustainable fashion in a circular economy. Aalto University Press.				

Bloom’s Taxonomy (BT) Levels: 1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation

	Department of Clothing and Textiles Faculty of Family and Community Sciences The Maharaja Sayajirao University of Baroda NAAC Accredited “A+” Grade						Academic Year	2027-28	
M.Sc (F.C.Sc) Clothing & Textiles									
Year	I	ADVANCE DRAPING AND DESIGNING				Credits/Hours per week Hours per semester		4 (0+4) / 8 hours per week (Practical: 120 hours) Total: 120 hours/semester	
Semester	II	Year of Introduction: 2027-28 Year of revision:				Minimum / Maximum Marks		36 /100 Marks	
Mode of Transaction	Practical								
Course outcome CO 1 Develop original design concepts using draping. CO 2 Apply advanced draping techniques for complex garments. CO 3 Integrate aesthetics, functionality, and sustainability. CO 4 Translate draped forms into production-ready patterns. CO 5 Build a professional design portfolio.									
Unit no.	Topic	Contact Hours	Weight age (%)	BT Level	CO	PSO	Elements of Employability (Emp)/ Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National(N)/ Regional(R)/ Global(G)	Relation to Gender(G), Environment Sustainability(ES). Human Values (HV), Professional Ethics (PE)
I	Principles of Draping 1. Three-dimensional design concepts 2. Grain, balance, symmetry, and fabric behavior	12	10	1,2	1		Employability, Skill Development	Global	Environment Sustainability

	3. Draping tools, materials, and marking standards								
II	Draped Foundation Structures (CLO2) 1. Draping of basic bodice (front & back) 2. Draping of basic skirt 3. Draping of shift dress 4. Draping of basic sleeve 5. Truing, balancing, and pattern extraction from draped muslin	24	20	1,2	1		Employability, Skill Development	Global	Environment Sustainability, Professional Ethics
III	Advanced Draping Techniques 1. Bias draping 2. Asymmetrical draping 3. Cowl and contour draping 4. Knotting, twisting, pleating in drape 5. Draping for added fullness (gathers, pleats, flares) 6. Draped necklines and collars 7. Multi-layer draping	24	20	2,3,4,5	2,3		Employability, Entrepreneurship, Skill Development	Global	Environment Sustainability, Professional Ethics
IV	Sustainability & Innovation	24	20	2,3,4,5	2,3,4		Employability, Skill Development	Global	Environment Sustainability,

4.	Crawford – Amaden Connie, The Art of Fashion Draping Second Edition, Fairchild Publishers, New York, 1996.
5.	Jaffe Hilde &RelisNurie, Draping for Fashion Designing, Second Edition, Prentice Hall Englewood Cliffs, New Jersey 07632, 1993
6.	Kiisel, K. Draping: The Complete Course, Laurence King Publishing, London,2020
7.	Nakamichi, T. – <i>Pattern Magic</i> (Vol 1–3), Laurence King Publishing, London, 2010

Bloom’s Taxonomy (BT) Levels: 1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation

M.Sc (F.C.Sc) Clothing and Textiles- REGULAR First Year – Semester II (Level – 6.5)										
Year	I	Core Course Research Analysis and Implementation	Credits /Hours per week Hours per semester		4 (4+0) Credits / 4 hours per week Total Theory – 60 hours					
Semester	II	Year of Introduction: 2026-27	Maximum Marks / Minimum Marks		100 Marks / 36 Marks					
Mode of Transaction										
Course outcome (CO) CO1: Identify and analyze credible research sources in Clothing and Textiles. CO2: Critically evaluate published research with respect to methodology and research design. CO3: Synthesize literature to develop conceptual frameworks and formulate research titles. CO4: Develop a feasible research proposal aligned with identified research gaps.										
Unit No.	Topic	Contact Hours	Weight-age (%)	BT Level	CO	PSO	Elements of Employability (Emp) / Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National (N) /Regional(R)/ Global(G)	Relation to Gender(G), Environment Sustainability (ES), Human Values (HV) Professional Ethics (PE)	
COURSE CONTENT										
UNIT I	Orientation to Research Sources and Scholarly Presentation 1. Identifying relevant research journals in Clothing and Textiles through online databases and university libraries - physical and digital resources. 2. Orientation to major thrust areas in Clothing and Textiles research (including interdisciplinary / multidisciplinary areas). 3. Understanding the difference between research articles and review articles. 4. Guidelines for selecting and presenting a research paper for seminar. 5. Reading strategies for academic papers 6. Effective use of ICT and audio-visual tools as presentation aids. 7. Presentation skills: legible font size, appropriate colour contrast, visual clarity, voice modulation, and audience engagement. 8. Importance of additional reading to understand unfamiliar concepts beyond the selected paper. 9. Academic preparedness through consultation with experts and prior discussion (well before the presentation date).	4	7	2, 3	1		Emp, SD	N, G	PE, HV	
UNIT II	Three Seminar Presentation and Scholarly Communication 1. Preparing structured seminar presentations based on selected recent research papers in thrust areas of Clothing and Textiles with or without an interdisciplinary/ multidisciplinary approach. 2. Identifying type of research in Clothing & Textiles 3. Extending literature review to understand related theories, concepts, and methodological frameworks.	36	60	4,5	2		Emp, SD	N, G	G, ES, PE, HV	

2.	International Journal of Clothing Science and Technology. (n.d.). <i>International Journal of Clothing Science and Technology</i> . Emerald Publishing. https://www.emerald.com/insight/publication/issn/0955-6222
3.	Research Journal of Textile and Apparel. (n.d.). <i>Research Journal of Textile and Apparel</i> . Emerald Publishing. https://www.emerald.com/insight/publication/issn/1560-6074
4.	Textile Research Journal. (n.d.). <i>Textile Research Journal</i> . SAGE Publications. https://journals.sagepub.com/home/trj
5.	Journal of the Textile Institute. (n.d.). <i>Journal of the Textile Institute</i> . Taylor & Francis. https://www.tandfonline.com/toc/titi20/current
6.	Journal of Industrial Textiles. (n.d.). <i>Journal of Industrial Textiles</i> . SAGE Publications. https://journals.sagepub.com/home/jit
7.	Indian Journal of Fibre & Textile Research. (n.d.). <i>Indian Journal of Fibre & Textile Research</i> . CSIR-NIScPR. https://nopr.niscpr.res.in
8.	The Textile Association (India). (n.d.). Journal of the Textile Association. https://www.textileassociationindia.org
9.	CSIR–National Institute of Science Communication and Policy Research. (n.d.). Indian Journal of Traditional Knowledge. https://nopr.niscpr.res.in/handle/123456789/60
	Indexed Databases (Citation & Abstracting Services)- high-quality, peer-reviewed, indexed journals
10.	Clarivate Analytics. (n.d.). <i>Web of Science Core Collection</i> . https://www.webofscience.com
11.	Elsevier. (n.d.). <i>Scopus</i> . https://www.scopus.com
12.	Elsevier. (n.d.). <i>ScienceDirect</i> . https://www.sciencedirect.com
13.	EBSCO Information Services. (n.d.). <i>EBSCOhost research databases</i> . https://www.ebsco.com
14.	JSTOR. (n.d.). <i>JSTOR digital library</i> . https://www.jstor.org
15.	Informatics India Ltd. (n.d.). <i>J-Gate</i> . https://jgateplus.com
16.	Wiley. (n.d.). <i>Wiley Online Library</i> . https://onlinelibrary.wiley.com
17.	Springer Nature. (n.d.). <i>SpringerLink</i> . https://link.springer.com
18.	Taylor & Francis. (n.d.). <i>Taylor & Francis Online</i> . https://www.tandfonline.com
19.	SAGE Publications. (n.d.). <i>SAGE Journals Online</i> . https://journals.sagepub.com
	Open Access Journals & Platforms - freely accessible
20.	Fashion and Textiles. (n.d.). <i>Fashion and Textiles</i> . Springer Open. https://fashionandtextiles.springeropen.com
21.	Autex Research Journal. (n.d.). <i>Autex Research Journal</i> . De Gruyter. https://www.degruyter.com/journal/key/aut/html
22.	Fibers. (n.d.). <i>Fibers</i> . MDPI. https://www.mdpi.com/journal/fibers
23.	Industria Textila. (n.d.). <i>Industria Textila</i> . http://industria-textila.ro
24.	Google. (n.d.). <i>Google Scholar</i> . https://scholar.google.com
25.	Directory of Open Access Journals. (n.d.). <i>DOAJ</i> . https://www.doaj.org
	Academic Networking & Scholarly Sharing Platforms - Useful for accessing author-uploaded papers, preprints, and connecting with researchers
26.	Academia.edu. (n.d.). <i>Academia.edu</i> . https://www.academia.edu
27.	ResearchGate GmbH. (n.d.). <i>ResearchGate</i> . https://www.researchgate.net
28.	Social Science Research Network. (n.d.). <i>SSRN</i> . https://www.ssrn.com
29.	Open Science Framework. (n.d.). <i>Open Science Framework (OSF)</i> . https://osf.io
30.	Shodhganga. (n.d.). <i>Shodhganga: A reservoir of Indian theses</i> . INFLIBNET Centre. https://shodhganga.inflibnet.ac.in
31.	National Digital Library of India. (n.d.). <i>NDLI</i> . https://ndli.iitkgp.ac.in
32.	INFLIBNET Centre. (n.d.). e-ShodhSindhu: Consortia for higher education electronic resources. https://ess.inflibnet.ac.in

	Institutional Web Resource (MSU Baroda) -
33.	Masters and Doctoral Dissertations – Departmental Library
34.	The Maharaja Sayajirao University of Baroda. (n.d.). Hansa Mehta Library. https://www.hmlibrary.ac.in/
	Hansa Mehta Library provides access to subscribed databases (Scopus, Web of Science, Springer, Elsevier, etc., as per subscription), E-journals and e-books, Institutional repository (theses and dissertations), Physical access to print journals, Inter-library loan facility
	Industry / Trade Journals – (Not Peer-Reviewed Research Journals)
35.	Asian Textile Journal. (n.d.). <i>Asian Textile Journal</i> . https://www.atjournal.com
36.	Colour Publications Pvt. Ltd. (n.d.). <i>Colourage</i> . https://colourpublications.in/colourage-journal/
37.	Journal of Textile Review. (n.d.). <i>Textile Review</i> . https://textilereview.com/

Bloom’s Taxonomy levels: 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

		Department of Clothing and Textiles Faculty of Family and Community Sciences The Maharaja Sayajirao University of Baroda NAAC Accredited "A+" Grade				Academic Year		2026-27	
M.Sc (F.C.Sc) Clothing & Textiles									
Year	I	TEXTILE CHEMISTRY CTX2218C05				Credits/Hours per week Hours per semester		4 (3+1) / 5 hours per week Total: 75 hours/semester	
Semester	II	Year of Introduction: 2025-26 Year of revision:				Minimum / Maximum Marks		36/100 Marks	
Mode of Transaction		Lectures and Practical							
Course Outcome (CO) CO1: Understand the principles of polymer science and relate fibre structure to physical and chemical properties.. CO2: Demonstrate the manufacturing processes and chemical composition of regenerated, protein, and synthetic fibres. CO3: Apply instrumental techniques such as FTIR, XRD, and SEM for fibre identification and analysis. CO4: Analyse the behaviour of textile fibres when subjected to acids, alkalis, oxidizing and reducing agents. CO5: Perform qualitative and quantitative chemical tests for identification of fibres and fibre blends.									
Unit no.	Topic			Contact Hours	Weight age (%)	BT Level	CO	PSO	Elements of Employability (Emp)/ Entrepreneurship (Ent) Skill Development (SD) Relevance to Local(L)/ National(N)/ Regional(R)/ Global(G) Relation to Gender(G), Environment Sustainability (ES). Human Values (HV), Professional Ethics (PE)

I	Polymer Science 1. Fundamental Concepts of Fibre Polymers, Polymerization mechanisms - addition and condensation, Degree of polymerization and molecular weight. 2. Classification of polymers used in textiles, Structure of textile polymers, Crystalline and amorphous regions in fibres. 3. Glass transition temperature and melting temperature, Orientation and intermolecular forces in polymers, Structure–property relationship in textile fibres, Thermal behaviour and degradation of polymers.	10	13	1,2,3	1	1	Employability	National, Global	Environment Sustainability, Professional Ethics
II	Natural Fibre Polymer Structure 1. Polymer Structure, Chemical Composition, Polymer modification, Physical and chemical properties of natural textile fibres. a. Cellulosic Fibres - Cotton - structure, composition and properties - Minor cellulosic fibres - structure and characteristics b. Protein Fibres - Wool - polymer structure, chemical composition and properties - Silk - polymer structure, chemical composition and properties 2. Structure–property relationship in synthetic fibre polymers, Chemical reactivity and thermal behaviour of synthetic fibre polymers.	12	16	1,2,3,4	2	1	Employability / Entrepreneurship Skill Development	Local, National, Global	Environment Sustainability, Gender Human Values
III	Synthetic Fibre Polymer Structure 1. Polymer structure, chemical composition, polymer modification, and physical and chemical properties of synthetic textile fibres.	12	16	1,2,3,4	2, 4	1	Employability	National, Global	Environment Sustainability, Professional Ethics

	a. Polyamide Fibres - Nylon - polymer structure, composition and properties. b. Polyester Fibres - PET - polymer structure, composition and properties. c. Acrylic Fibres - Polymer structure, copolymer composition and properties. d. Polyolefin Fibres - Polypropylene - polymer structure, composition and characteristics. 2. Structure - property relationship in synthetic fibre polymers, Chemical reactivity and thermal behaviour of synthetic fibre polymers.								
IV	Instrumental Analysis of Textile Fibres. 1. Principles and applications of instrumental techniques in fibre analysis - Infrared spectroscopy (FTIR) for identification of fibre polymers - X-ray diffraction (XRD) for crystalline structure analysis - Scanning Electron Microscopy (SEM) for surface morphology of fibres - Ultraviolet Visible spectroscopy (UV-Vis) for analysis of dyes and chemical treatments - Thermal analysis of fibres - basic concepts of DSC and TGA. - Application of instrumental methods in studying chemical and structural changes in fibres.	11	15	2,3,4,5	3	1	Employability	Global	Professional Ethics, Environment Sustainability
V	Practical - Textile Fibre Chemistry 1. Identification of textile fibres	30	40	3,4,5,6	4,5	1	Employability, Skill Development	National, Global	Professional Ethics, Environment Sustainability,

	- Microscopic identification of natural and synthetic fibres. - Longitudinal and cross-sectional view of fibres									Human Values
2.	Chemical behaviour of fibres - Action of acids and alkalis on different textile fibres. - Effect of oxidizing and reducing agents on fibres									
3.	Qualitative and quantitative analysis - Chemical identification tests for cellulosic, protein and synthetic fibres. - Qualitative analysis of fibre blends. - Quantitative estimation of cellulose and regenerated fibres									
4.	Instrumental and analytical exposure (demonstration/data based) - Interpretation of FTIR spectra for fibre identification - Study of chemical damage on fibres using microscopic observation									

SUGGESTED EVALUATION			
CCE (50% IA)	MARKS	SEE (50% UA)	MARKS
Class Test (Written Mid Semester Examination)	25	Final Test (Written End Semester Examination)	50
Lab work Assessment / Practical Journal	15		
Assignment	05		
Attendance	05		
Total	50	Total	25
PREREQUISITES			

1.	Basic concepts of organic chemistry and fundamentals of polymer science
2.	Structure, properties, and classification of textile fibres
3.	Basic textile testing and fibre identification techniques
4.	Elementary understanding of laboratory safety and chemical handling
REFERENCES	
1.	Cook, J. G. (2001). <i>Handbook of textile fibres</i> (Vol. 1: Natural fibres, 5th ed.). Woodhead Publishing.
2.	Cook, J. G. (2009). <i>Handbook of textile fibres</i> (Vol. 2: Man-made fibres, 5th ed.). Woodhead Publishing.
3.	Grover, E. B., & Hamby, D. S. (2011). <i>Handbook of textile testing and quality control</i> . Bhushan Printline.
4.	Gulrajani, M. L. (2010). <i>Chemical processing of textiles</i> . Woodhead Publishing India.
5.	Lewin, M. (Ed.). (2016). <i>Handbook of fiber chemistry</i> (4th ed.). CRC Press.
6.	Mahapatra, N. N. (2015). <i>Textile technology</i> . A.P.H. Publishing Corporation.
7.	Rastogi, D., & Chopra, S. (2017). <i>Textile science</i> . Orient Blackswan.
8.	Saville, B. P. (2018). <i>Physical testing of textiles</i> (3rd ed.). Woodhead Publishing.
9.	Sekhri, S. (2011). <i>Textbook of fabric science: Fundamentals to finishing</i> . PHI Learning Pvt. Ltd.
10.	Smith, J. L. (2015). <i>Textile processing: Printing, dyeing, finishing</i> . Abhishek Publications.

Bloom's Taxonomy (BT) Levels: 1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation

PSO: To apply theoretical knowledge in real-world settings with effective skills, analysis, and ethical responsibility.

M.Sc (F.C.Sc) Clothing and Textiles- REGULAR First Year – Semester II (Level – 6.5)												
Year	I	Core Course AI Applications in Clothing and Textiles				Credits /Hours per week Hours per semester		2 (1+1) Credits / 3 hours per week Theory - 15 hours + Practical - 30 hours, Total – 45 hours				
Semester	II	Year of Introduction: 2026-27				Maximum Marks / Minimum Marks		50 Marks / 18 Marks				
Mode of Transaction		Lectures, Demonstrations, Workshops, Practical Exercises, Case Studies, Seminars, Tutorials, ICT-enabled learning.										
Course outcome (CO) CO1: Explain core AI concepts and their relevance to Clothing and Textiles. CO2: Analyze AI-based applications in textile design, manufacturing, and retail systems. CO3: Evaluate the role of AI in improving efficiency, sustainability, and ethical practices in the textile value chain. CO4: Develop AI-assisted textile or apparel design outputs using relevant digital tools.												
Unit No.	Topic				Contact Hours	Weight-age (%)	BT Level	CO	PSO	Elements of Employability (Emp) / Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National (N) /Regional(R)/ Global(G)	Relation to Gender(G), Environment Sustainability (ES), Human Values (HV) Professional Ethics (PE)
COURSE CONTENT												
UNIT I	AI Foundations for Textiles				5	17	2	1		SD	N.G	G, HV, PE
	10. Basic concepts – Artificial Intelligence, Machine Learning, Deep Learning											
	11. Data in textiles (design data, production data, consumer data)											
UNIT II	Applications in Textile Value Chain				10	33	4,5	2,3		SD	N, G	HV, PE
	1. AI in Design & Product Development											
	2. AI in Manufacturing & Quality Control											
UNIT III	Tools in Clothing and Textile Applications (Practical)				30	50	6	4		Emp, SD	L, R, N	G, ES, PE
	3. Colour palette forecasting tools											
	4. Virtual garment simulation											
SUGGESTED EVALUATION												
CCE (IA 50%)					Marks		SEE (UA 50%)				Marks	
Class test (Written exam)					10		Semester Exam (Written)				25	
Class Assignment /Home Assignment					15							
Total					25		Total				25	
REFERENCES												
	Books											
38.	Ghosh, A., Das, S., & Saha, B. (2024). <i>Artificial Intelligence in Textile Engineering: Basic Concepts and Applications</i> . Woodhead Publishing.ISBN: 978-0-443-15395-2											

39.	Nilsson, N. J. (1998). <i>Artificial Intelligence: A New Synthesis</i> . Morgan Kaufmann.
40.	Behera, B. K., & Mishra, R. <i>Artificial Intelligence in Textile Industry</i> . Woodhead Publishing.
41.	Hu, J. (Ed.). (2011). <i>Computer Technology for Textiles and Apparel</i> . Woodhead Publishing (The Textile Institute Series). ISBN: 978-0-08-101703-6
42.	Wong, W. K. (Ed.). (2017). <i>Applications of Computer Vision in Fashion and Textiles</i> . Woodhead Publishing (The Textile Institute Book Series). ISBN: 978-0-08-101217-8
43.	Nimkulrat, N., Kane, F., & Walton, K. (Eds.). (2016). <i>Crafting Textiles in the Digital Age</i> . Bloomsbury Academic. ISBN: 978-1-350-18560-9
44.	Reports
45.	McKinsey & Company. <i>The State of Fashion Technology</i> .
46.	Fashion Innovation Agency. <i>Reports on Artificial Intelligence in Fashion and Retail</i> .
47.	Lectra & Gerber Technology. <i>White Papers on AI and CAD Integration in Textiles and Apparel</i> .
48.	WGSN. <i>AI-driven Trend Forecasting Reports</i> .
49.	Websites
50.	<i>Artificial Intelligence in Textile Industry – Research Article</i> . https://www.allresearchjournal.com/archives/2025/vol11issue4/PartB/11-4-14-745.pdf
51.	<i>How AI is Leading the Textile Industry to a New Lease on Life</i> . AMT Lab (2024). https://amt-lab.org/blog/2024/1/how-ai-is-leading-the-textile-industry-to-a-new-lease-on-life
52.	<i>Application of CAD/CAM Software in Clothing Industry</i> . http://textilemerchandising.com/application-cad-cam-software-clothing/

Bloom’s Taxonomy levels: 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

M.Sc (F.C.Sc) Clothing and Textiles (Clothing and Textiles) - REGULAR Fourth Year – Semester 4 (Level 5.5)												
Year	II	Fashion Business Entrepreneurship			Credits / Hours per week Hours per semester			2(2+0) Credits / 02 hours per week Theory:30 hours / Total: 30 hours				
Semester	II	Year of Introduction: 2026-27 Year of revision: 2026-27			Maximum Marks / Minimum Marks			100 Marks / 36 Marks				
Mode of Transaction												
Course outcome (CO) CO1: Understand the structure and scope of the fashion business sector CO2: Identify entrepreneurial opportunities in the fashion and textile industry CO3: Prepare a basic business and feasibility plan for a fashion venture												
Unit No.	Topic				Contact Hours	Weight age (%)	BT Level	CO	PSO	Elements of Employability (Emp) / Entrepreneurship (Ent) Skill Development (SD)	Relevance to Local(L)/ National (N) /Regional(R)/ Global(G)	Relation to Gender(G), Environment Sustainability (ES), Human Values (HV) Professional Ethics (PE)
THEORY												
I.	FASHION INDUSTRY AND ENTREPRENEURSHIP 1. Overview of the fashion and textile industry 2. Scope and opportunities in fashion entrepreneurship 3. Characteristics and role of a fashion entrepreneur 4. Areas of fashion business: apparel, accessories, boutiques, export houses, fashion services 5. Ethical practices and sustainability in fashion business				10	30	1,2	1		Employability, Entrepreneurship	Local &National	Professional Ethics
II.	STARTING A FASHION BUSINESS 1. Market research: concept, importance, and methods 2. Understanding customer needs and market gaps 3. Feasibility analysis: a. Market feasibility b. Technical feasibility c. Financial feasibility 4. Business models in fashion enterprise				12	40	2,3,4	2		Employability, Entrepreneurship	Local &National	Environment Sustainability Professional Ethics

III.	BUSINESS PLANNING AND MANAGEMENT				08	30	1,2	1,2,3		Employability, Entrepreneurship	Local &National	Professional Ethics
	1. Concept and components of a fashion business plan											
	2. Sources of finance and funding options											
	3. Basics of cost estimation and pricing											
	4. Infrastructure, location, and resource planning											
	5. Common challenges faced by fashion startups and problem-solving strategies											
	6. Business legal structure											
SUGGESTED EVALUATION												
CCE (IA 50%)					Marks		SEE (UA 50%)					Marks
Class test (Written exam)							Written Semester Exam					
Class Assignment /Home Assignment/ Case studies												
Field Assignment / Presentation												
Total							Total					
REFERENCES												
1.	Armstrong, H., & Armstrong, J. (2012). <i>Fashion design course: Principles, practice and techniques – The ultimate guide for aspiring fashion designers</i> . London: Thames & Hudson.											
2.	Carter, S., & Jones-Evans, D. (2012). <i>Guide to Fashion Entrepreneurship</i> . London: Bloomsbury Publishing.											
3.	Diamond, J., Diamond, E., & Litt, S. (2015). <i>Fashion Retailing: A Multi-Channel Approach</i> (3rd ed.). New York: Pearson Education.											
4.	Gordon, T. (2017). <i>How to Set Up & Run a Fashion Label</i> (2nd ed.). London: Bloomsbury Publishing.											
5.	Ministry of MSME, Government of India. <i>Entrepreneurship Development and Startup Guidelines. (Indian MSMEs, policy support, startup ecosystem)</i>											
6.	Posner, H. (2015). <i>Marketing Fashion: Strategy, Branding and Promotion</i> (2nd ed.). London: Laurence King Publishing.											

Bloom’s Taxonomy (BT) Levels:

1. Remember

2. Understand

3. Application

4. Analysis

5.Evaluation

6. Creation